

# **THE NEW BASEL CAPITAL ACCORD**

## **COMMENTS OF CREDIT SUISSE GROUP**

### **ADVANCE NOTICE OF PROPOSED RULEMAKING**

#### **SUPERVISORY GUIDANCE ON INTERNAL RATINGS-BASED SYSTEMS FOR CORPORATE CREDIT**

#### **SUPERVISORY GUIDANCE ON OPERATIONAL RISK ADVANCED MEASUREMENT APPROACHES FOR REGULATORY CAPITAL**

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## **1. Executive Summary**

Credit Suisse Group is a leading global financial services company headquartered in Zurich. It is comprised of two business units: Credit Suisse Financial Services (private banking, retail banking and financial advisory services, as well as pension and insurance solutions through our insurance affiliate) and Credit Suisse First Boston ("CSFB") (investment banking and asset management) headquartered in New York. The company has operations in over 50 countries and employs approximately 73,000 staff. Credit Suisse Group and its subsidiaries are subject to regulation by, among others, the Swiss Federal Banking Commission (the "EBK"), which is the principal Swiss banking regulator, the U.S. Federal Reserve System and the U.K. Financial Services Authority. Credit Suisse Group and CSFB are each U.S. Financial Holding Companies registered with the Federal Reserve Board.

We appreciate this opportunity to comment on the ANPR as well as the supporting Supervisory Guidance and commend the banking agencies for their efforts in moving the concepts drawn from the Basel Committee to the implementation level. The ANPR consultation period provides a vitally important opportunity to take stock of the Basel II process, and to ask ourselves - before it is too late - whether Basel II embodies the objectives that the Basel Committee intended when the reforms were first proposed.

The Basel II negotiation has been a long learning process and, in common with many ambitious undertakings, the original motivations may perhaps now seem somewhat distant. For us, the principal objective was to replace the current, overly simplistic regime with a more thoughtful, risk-based approach designed to deter arbitrage by being based on sound principles incorporating current best practices in internal risk management. We still strongly support the original objectives behind the Basel II reforms.

Weighed against these fundamental objectives, Basel II in its current form is still only a partial success. On balance, we believe that its advantages outweigh the drawbacks, but the balance remains close. This is a disappointing outcome at this point for an initiative with so much potential. The rules that are being negotiated will govern bank capital for many years to come, so it is crucial at this stage to remove any obstacles to a successful implementation and to prevent, if at all possible, adverse unintended consequences.

We believe that serious change is still needed to make the New Accord a clear, relevant and durable advance in financial market regulation. Based on the reports from the Basel Committee's recent Madrid session, we are optimistic that there is still a willingness to consider such changes, rather than simply force implementation of the current draft. We believe the ANPR represents a significant step in the right direction and a sign of commitment on the part of the U.S. Agencies to the objectives of the Basel process. The ANPR broadly follows the text of the CP3, but it places a greater emphasis on the principles of the underlying risks, and is more even-handed. It focuses on what is feasible and recognizes that lasting answers to prudential concerns will require a meaningful partnership between banks and their supervisors, rather than mere enforcement of a highly detailed rulebook.

We believe the ANPR and related Supervisory Guidance represent an important step towards implementing Basel II. In our view, the ANPR generally shows a substantial improvement where it diverges in approach or tone from CP3. It is clear that the Agencies have considered carefully and improved on certain conceptual issues addressed by CP3, such as assessment of ratings and PDs.

We recommend that these changes in substance and tone be reflected in the final documents that are ultimately issued by the Basel Committee in 2004, rather than only be issued as US guidance. We believe that leadership on these points by the US regulators in the Basel Committee could be a major force for positive changes. Indeed, without a global implementation, the improvements contemplated in US implementation could become lost in home-host disagreements when applied to international banks.

The Basel Committee is at a critical point in its considerations. We believe that the six-month delay<sup>1</sup> can be highly beneficial as it permits additional work on technical matters such as securitization and also allows national regulators to review specific implementation parameters. We also believe that it can be a useful period to review the document as a whole, and trim areas of unnecessary complexity or excessive expense. At this crucial stage of the international process, we believe it is particularly important that the U.S. regulators adopt this approach<sup>2</sup>, and also share their findings from the ANPR comments back to the Basel Committee.

In assessing the comments from the ANPR process, we recommend that the U.S. regulators take back to the Basel Committee the unified position that the final Accord needs, as a threshold matter, to embody the following key policy judgements:

- **An efficient home-host framework for international banks**

Basel II is enormously more complex than Basel I, requiring numerous judgements and complex systems for implementation. If banks are required to build multiple systems in different jurisdictions reflecting different judgements, the important advances of Basel II could be sunk in a quagmire of bureaucracy. Avoiding this will require a home – host framework that allows supervisors to rely on each other's work to a degree not seen under Basel I. The existing individual legal responsibilities of supervisors could present a major obstacle to achieving this.<sup>3</sup> As we suggested in comments filed on CP3, we would recommend that regulators create dedicated committees of supervisors for each multi-national bank to address cross border implementation issues. As a global bank, we are effectively supervised in such a manner by our primary regulators and believe that this would be an effective mechanism to address implementation issues on an institution specific basis. To date, while the Basel Committee has created the "Accord Implementation Group", we have seen little meaningful action from this body.

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<sup>1</sup> On 11 October 2003 the Basel Committee announced changes to key aspects of the New Accord. Specifically, the timetable for finalisation of the Accord will be delayed by approximately six months, and in that time the Committee plans to consider significant changes to the proposals for asset securitization and some other areas. The Committee also presented a proposal to alter the basis of the New Accord from expected and unexpected loss, to unexpected loss only. The Basel Committee's announcement naturally postdates this ANPR. Nevertheless, we have reflected the new developments in our comments on asset securitization and on expected and unexpected loss.

<sup>2</sup> For example, an excellent aspect of the ANPR is its extensive use of examples to illustrate the guidance that the documents should provide. This use of examples should be extended to as many parts of the Documents as reasonably possible, including to other sections where it is not as prevalent, such as the section on ratings philosophy, where further practical guidance would be extremely useful.

<sup>3</sup> For example, one specific operational risk related home host issue is in the determination of legal entity Operational Risk AMA capital requirements; this will not be possible for multiple legal entities due to issues such as data availability. The industry has proposed a pragmatic apportionment approach to determining legal entity capital. Such a solution needs to be allowable under the AMA for the concept of AMA to work for large multi-entity banking groups. See Appendix 1 for more details.

- **Respect for internal risk practice**

The majority of the New Accord is technically sound and builds on industry best practice, as implemented at leading banks. However, even where the concepts are not in doubt, it is important to ensure that guidance is consistent with good internal processes and not unnecessarily duplicative.

Adherence to the letter of Basel II is desirable in concept; it facilitates, among other things, the role of supervisors. However, it will not be practicable to manage all future positions and situations by the letter of the rules, particularly as best practice moves forward. In those cases, a balanced and constructive relationship between banks and supervisors will be essential for reviewing compliance with the spirit of the rules, not just the letter.

Effective regulation also requires respect for the proper role of government supervision vis-à-vis existing internal practices and avoids burdensome micromanagement and needless replication. In this respect, we suggest that the detailed validation and documentation requirements required in several areas under the current proposals should be reconsidered and be replaced by a system that respects the judgments of risk managers at firms that have demonstrated over time superior risk management procedures; we set out specific examples below.

- **Uniformity of prudential standards**

CP3 has resulted from the efforts of numerous committees and individuals working independently in different styles. While this is a necessary part of such a large process, such a diversity of approaches also can create drawbacks. One example is the lack of any uniform approach to materiality in the Pillar I calculations. The New Accord should aim at a reasonable standard for *overall* certainty and confidence in the capitalisation of most banks, and relax the details required for smaller areas, which have little overall impact.

Fundamentally, there is a substantial, irreducible amount of practical uncertainty in estimating the riskiness of any asset or institution. Consider, for example, the uncertainty inherent in Operational Risk<sup>4</sup>, where many commentators question whether an accurate estimate can be achieved to even an order of magnitude level. In comparison, several other areas – such as asset securitization and internal VaR calculations for securities finance transactions – are subject to highly detailed treatments where CP3 seeks to eliminate the smallest possibility of error. In the context of the overall accuracy possible under Pillar I, the latter treatments will not improve the overall precision of the result, but they will pose considerable implementation cost to banks.

We comment further on the need for uniformity at Section 2.

- **Ability to cope with procyclicality**

We believe that Basel II will have serious effects on both national economies and key financial markets (e.g. corporate loans, repurchase agreements). CP3 does not in our view address the risk of negative consequences sufficiently. Most banks and academic

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<sup>4</sup> Uncertainty in this area could be estimated, for example, as the spread of results obtained by different acceptable approaches using the same data (although this would be lower than the real uncertainty that exists between “reality” and models that are unconstrained by regulatory review).

commentators agree that the New Accord has pro-cyclical characteristics, creating a volatility of capital requirements that will pose significant challenges for firms. Therefore we recommend a more thorough evaluation of the overall volatility that the New Accord will bring to the banking system and a clear determination of what how supervisors intend to handle this volatility in times of stress. We comment further on this topic later in this submission.

### **CSFB's ANPR Priorities**

Finally, beyond these general principles, we would also like to highlight two specific items in the ANPR that are high priorities for Credit Suisse Group. First, we believe that asset securitization is one of the elements of the New Accord where significant work is still urgently needed. Both the ANPR as well as CP3 continue to have weaknesses and we strongly encourage U.S. regulators to consider a significant revision to the asset securitization provisions. The U.S. has the largest worldwide volume of securitizations and we would suggest that the U.S. regulators are uniquely situated to make judgments on the risks involved in securitization. In section 3 below we suggest some additional ideas on securitization for consideration.

Second, we strongly support the position of the U.S. regulators on the grandfathering of private equity investments. A significant grandfathering period is important to ensure that firms are not incentivized to liquidate assets in a manner that creates discounted valuations and disrupts markets. We would encourage the U.S. regulators to work with the Basel Committee as a priority to adopt a similar standard in the final Accord for purposes of preserving stability in worldwide asset markets.

## **2. Major policy issues**

### **2.1. The home-host framework for international banks**

We addressed this important issue in detail in our comments on CP3 (CSG CP3 Comments, Section 3.3). It is critical for the internationally active banks at which the IRB approach is aimed, that their national supervisors establish uniform standards that apply to all of such banks' operations, wherever these may be located, and that they accept responsibility for synchronising their approaches into a consistent cooperative framework. On the other hand, if supervisors neglect the issue, then the cost of failure will fall on the banking system and their customers.

An effective international framework for operating the IRB approaches without wasteful duplication of effort, conflict and uncertainty should satisfy the following elements:

- National implementations are as uniform as possible, with minimum divergence in either capital requirements or qualification standards for the various approaches.
- Regulators in the host supervisor position for foreign subsidiaries should generally defer to home regulator implementation in situations where the home regulator has granted IRB/AMA approval for the parent-banking group using consolidated data.
- Where deferral is not possible, regulators meet to iron out their differences in a committee, so that a common application can be achieved (see detailed proposals on this matter below).
- Where an irreconcilable difference exists, host supervisors aim to avoid requiring a different system or different judgements, but instead reflect any such concerns by applying a prudential multiplier.

The IRB approaches require complex validation and ongoing supervision covering many parameters and processes. If an international banking group would have to operate different IRB and/or AMA approaches or use different data for such approaches for each individual jurisdiction in which it operates, serious problems will arise. This would result in the development, testing, implementation and maintenance of parallel systems and processes – a potentially huge misuse and diversion of risk resources away from the improved management that Basel aims at. Indeed, the complexity and confusion created by such multiple systems could itself lead to an increase in risk.

We would have preferred to see a greater commitment on the part of the Basel Committee to providing a meaningful solution to the home - host issue. The only guidance issued by the Basel Committee to date on the issue of home – host relations is “High level principles for the cross – border implementation of the New Accord”, released August 2003. This document attempts to establish a framework setting out six “principles” governing home – host supervisor relations. We believe this document should have gone further towards providing concrete solutions to the problem. The six principles are merely statements of current fact and evidence of good intentions, but they offer no solution to what is an inherently difficult global situation.

Specifically, the principles governing individual legal responsibilities conflict with those suggesting enhanced cooperation and oversight by the home regulator<sup>5</sup>. It must be

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<sup>5</sup> Specifically we refer to Principles 1 and 3 (individual legal responsibilities), Principle 4 (enhanced cooperation) and Principle 2 (oversight by the home regulator).



recognised that where there is a conflict, legal obligations will necessarily win out over generally good intentions to cooperate and the result will be that the Committee's principles will be effectively voided.

We believe two important issues lie at the heart of the home – host problem:

- Supervisors' existing legal obligations are often inherently irreconcilable with material reliance on and cooperation with other supervisors.
- No effective mechanism exists to promote and coordinate cooperation even where the legal framework permits it.

The legal issue can only be resolved if leading supervisors commit to a review of their own legal obligations, and propose to their respective legislatures changes to the laws applicable to them in their own jurisdictions, to allow them to meaningfully cooperate with each other. We recognize that this is a long-term suggestion and will require significant commitment and time, but we cannot see any other effective approach.

The practical issue also demands a more creative approach. We commented on this in reply to CP3 (CSG CP3 Comments, 9) and there suggested a solution based on the formation of a "committee of supervisors", constituted of the "main" supervisors of an internationally active bank, for example those supervisors responsible for 10% or more of the bank's capital requirements. The committee of supervisors would mediate the various home-host relationships relevant to the bank. When requested by the bank, they would commit to reconcile the requirements of different supervisors into a single approach that satisfied both the home supervisor and the relevant host supervisor.

An additional home host issue specific to Operational Risk is that of the determination of legal entity level AMA capital calculations. There are a number of issues preventing a meaningful calculation of AMA capital for subsidiary legal entities including the lack of loss data, and the lack of alignment of the business unit structure used for managing a business and the legal entity structure of a firm. Therefore an apportionment mechanism to determine legal entity capital from the group derived AMA charge, embedded with in the Basel Accord, is essential for AMA to operate in a meaningful manner.

In large banking groups, capital is utilised and transferred intra-group where required. Accordingly, any requirement that the sum of the legal entity capital is greater than the Group level capital is adding extra conservatism at each legal entity. In order to prevent this, and to ensure that the total level of capital required is not a function of the legal entity structure of the firm, the sum of the subsidiary-level AMA capital charges should be equal to the Group derived AMA charge as the word apportionment literally suggests. The Basel Accord has been calibrated at Group level only, so if the sum of the subsidiaries exceeds the Group level requirement, then the total Group capital requirement will be greater than the desired benchmark, and will be another source of over-conservatism being built into the New Accord. This is a critical implementation issue for multinational banks and to date little comfort has been received from the Committee. We suggest some possible implementation schemes in the Appendix, and urge U.S. regulators to address this problem specifically within both the U.S. regulatory framework and the Basel Committee

## **2.2. Respect for internal risk practice**

The Accord and, to an even greater degree, the ANPR, build upon the techniques of internal risk management in a cogent way. Indeed, a major benefit of Basel II is its

codification of internal best practice at leading institutions, which will provide a useful guide for risk management departments.

However, a focus on compliance with the letter of Basel gives rise to the risk that the underlying Accord may displace thoughtful internal risk management or deter future progress on new issues.<sup>6</sup> In fact, much of the Accord's complexity and likely cost of implementation results from establishing a number of requirements that are inconsistent with the current internal risk management practice of many banks – for example particularly as it relates to credit documentation, data collection and validation procedures. This issue will likely get more serious over time, as best practice in the market develops further.

The difficulty of complying with Basel II and the conflict between regulation and risk management depends not just on what is written in the Accord, but on the interpretation of the Accord and supervisory style adopted by regulators. We believe the Accord in its current form invites a prescriptive style – by this we mean, an *implicit* negative assumption about a bank's internal choices and methods. This can also be called the "burden of proof" issue. We strongly support a regulatory regime that is based explicitly on positive assumption – a "trust but verify" regime – which we believe will be more effective in its day-to-day application.

Another element of proposed rules is the codification of expected supervision by high levels for management, including Board of Directors oversight. While effective governance is a critical element of good risk practice, the current document is too prescriptive about the details that a board should review. It presently includes, for example, such things as a required review of credit migration statistics (p70). While that statistic may be useful in some situations, it does not seem to rise to the level of a minimum, board level information requirement. While supervision by the board is clearly an important element of good practice, we would suggest that a less prescriptive, more general tone would be appropriate and form more durable guidance.

The new rules must support the real risk management needs of the business, or they will become an extra burden or even a diversion. Our internal assessment indicates that most of the additional resources required will not be in the risk control departments, but rather in the financial reporting and IT support systems areas, in order to generate the volume of data and reports that Basel II requires to a reliable, audit quality standard. While further systems development does provide some benefits, we remain concerned that the non-financial aspects of implementing the Accord's regulatory capital model may simply overwhelm a firm's support systems, which are geared toward risk management practices disciplined by the market, rather than the documentation, validation and data collection regime of Basel II. In particular, we would suggest that regulators consider a reduced supervisory regime where an internationally active bank demonstrates that it has strong risk management processes in place to make technical

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<sup>6</sup> For example, where on LGD the ANPR (page 41) says that "stress condition LGD generally exceeds [the long run average]", it states a view that is based on sound recent studies. The true picture is complex, however, and the danger is that by hard coding this statement into regulation, it will become a true orthodoxy and there will be no further investigation. The same is true of rating systems, on which we comment specifically below. Fundamentally, Finance is not a physical system, where research can determine unchanging laws of behavior. Rather, it is an estimate of how assets respond to given economic and regulatory circumstances. Basel II itself may alter this environment, so a study based on pre Basel II behaviour may become dated in a few years time.

judgements and where there are no current grounds for questioning these judgements.<sup>7</sup>

A critical review should be conducted to determine whether the New Accord could rely more heavily on the market mechanisms that currently discipline risk managers at banks, and less on documentation-heavy compliance. Furthermore, we also believe that explicit statements regarding the primacy of the “spirit” of the rules - rather than the letter - would be helpful as a guide for the inevitable disputes to be expected during the implementation process and entirely consistent with the process taken by the U.S. regulators in the ANPR.

### **2.3. Uniformity of standards**

The intricacy of some parts of the Basel Accord and ANPR relative to others is notable – for example, there is now general agreement that the rules for asset securitization are too complex. These may be contrasted with, for example, the AMA approach for Operational Risk, which has a much lighter note. These extremes illustrate the uneven tolerance for error and uncertainty in Pillar I. They simply reflect the different stage of model development for these different risks: the AMA approach allows for a wide range of modelling choices and assumptions, which (although CP3 and ANPR set out a number of constraints), undoubtedly means that different institutions’ approaches would assign a very wide range of capital levels to a given risk. On the other hand, the securitization rules are complicated by a number of mathematical and other intricacies, the impact of which is comparatively trivial in terms of their contribution to a bank’s total capital charge.

We believe that a single global tolerance for error and uncertainty in Basel II would be the best solution. The rules should concern themselves with the acceptable accuracy of the overall capital requirement calculated, rather than with errors that may be material in the context of the individual business line or product type but that are not globally important, and are therefore properly the concern of internal risk managers.

This issue is analogous to issues faced in the audit process for a firm’s books and records– while the books and records are expected to be very accurate, the audit focuses on errors that are material in the context of the overall fairness of the financial statements. Looking very closely at some very detailed areas is wasted effort when there is intrinsic uncertainty about others.

The overall level of uncertainty, resulting from the total error aggregated across all the risk types, is a “sum of squares”: One might reasonably state that:

$$\text{Error}_{\text{total}} = \sqrt{\text{Error}_{\text{OpRisk}}^2 + \text{Error}_{\text{Loans}}^2 + \text{Error}_{\text{Securitizations}}^2 + \dots}$$

In which the first term, due to the uncertainty inherent in Op Risk AMA calculations, is likely to be the largest. Those familiar with “sums of squares” calculations will know how even modest differences in sizes of the different terms can mean the smaller terms do not make a significant difference to the result. In other words, if Op Risk uncertainty is globally significant then small improvements to other calculations literally have negligible transmission to overall soundness. Therefore, almost no additional burden of cost/complexity should be tolerated to achieve them.

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<sup>7</sup> An example of a comparable reduced supervisory program in the U.S. is the so-called “Fed-Lite” program that was implemented after the passage of the Gramm-Leach-Bliley Act to permit reduced examination for “well-capitalized” and “well-managed” financial holding companies.

We believe that add-ons, prescriptions and validation tests that achieve limited additional overall soundness should be eliminated in the next draft of the New Accord. Examples in the New Accord and ANPR are:

1. Op risk data time requirement (Op Risk Guidance Document, page 84)
2. Op risk event categories (Op Risk Guidance Document, page 84)
3. VaR backtesting for repo (ANPR, page 57)
4. Securitization – classification of exposures as obligor and originator (ANPR, page 77.)
5. Securitization - deduction below KIRB (ANPR, page 78)
6. Securitization - SFA t and w factors (ANPR, page 83)

#### **2.4. The risk of procyclicality**

Basel II is likely to have pro-cyclical effects, with capital requirements that (absent some form of management) will tend to be exaggerated by economic cycles. The precise extent of this extra risk is not agreed upon, but we, in common with most leading banks, do not think that this volatility poses an unmanageable problem, provided the true nature of the issue is recognised. However, the approach taken, after initial recalibration of risk weights, has been to focus on the volatility inherent in banks' internal rating systems. From this, an orthodoxy has developed that labels some rating systems "through the cycle" and purports to explain how these systems give rise to more stable ratings.

The ANPR unfortunately makes this classification a centrepiece of AIRB validation, by requiring banks to express a rating philosophy expressed in terms of "through the cycle" and "point in time" ratings. The current language implicitly allows credit ratings to become out of date, as a mechanism to avoid volatile capital charges.

We believe this is not the best response to the issue of procyclicality, and is in any case unnecessary. Procyclicality is one among many uncertainties faced by an institution, and can be managed with foresight, planning and the ability to react to change, provided supervisors are flexible enough to allow temporary fluctuations in solvency ratios, as they implicitly do today.

### **3. Asset securitization**

#### **3.1. Introduction**

The treatment of asset securitization in the New Accord and the ANPR exemplifies several of the general principles outlined above.

We should state at the outset that we believe the concepts underlying the approach to be highly valid and to represent important contributions to risk management, made in large part by US agency staff. Some of the models developed in the construction of these rules will find permanent application for pricing and risk managing securitization. We do not criticise these concepts but only their mode of application within the Basel II framework.

#### **3.2. Key comments on the framework**

- **The rules are too complex and prescriptive**

We believe that the treatment of asset securitization in the New Accord and the ANPR is overly complex. The result is that only a few experts in each institution are likely to understand these rules, not because of the mathematics alone, but on account of the combined complexity of the mathematical rules and the structure that determines how the rules apply in any given case. We gave several examples of excessively complex aspects of the rules above.

- **Validation requirements are inappropriate**

Validation requirements within the rules are unnecessarily burdensome. In particular, failure to validate inputs to the models can result in “cliff effect” deductions from capital for facilities that fail, in a broadly unspecified way, to satisfy regulators as to the parameters used, on a deal-by-deal basis. Thus the ANPR has exposures risk being deducted from capital when the KIRB “cannot be determined”<sup>8</sup>. As we have previously stated in our CP3 comments<sup>9</sup>, the amount of capital that will thereby be made to depend on the precise interpretation of the word “cannot” is subjective and arguably unworkable.

We believe that, as drafted, this will result in an excessive amount of capital uncertainty in terms of the treatment of securitization exposures. That banks should face such uncertainty is inconsistent with the idea that Basel II seek to validate reasonable internal assumptions and rule applications, with (subject to overall comfort) an initial positive presumption. In such a positive environment, a competent risk management department should be able to secure certainty of capital treatment within reason. In some respects, we believe this aspect of the rules for securitization is due to the fact that the rules appear to be structured with a heavy concern about capital arbitrage. However, this approach could potentially cause problems for legitimate transactions and could undermine a widely accepted risk management tool used by institutions.

#### **3.3. CSFB Proposals**

We believe it is possible to formulate a simplified version of the proposals for asset securitization, with less complexity and prescriptiveness and which is still risk-sensitive,

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<sup>8</sup> ANPR page 75.

<sup>9</sup> CSG CP3 comments, page 31

consistent with risks maintained on balance sheet, and which retains the risk measurement innovations contained in the ANPR and the New Accord. Our proposed changes are set out below.

We believe that moving to this more principles-based system that leaves more discretion to banks – subject to thorough supervisory oversight – will provide a more durable and flexible solution for the long term.

#### Investor and originator distinctions

There should be no regulatory distinction between obligor and investor. All the approaches to calculating capital should be generally available to all parties to a transaction, provided they have sufficient data and can validate their approach. We would, however, make the following provisos:

- A choice of method should be justifiable and consistent over time and across the business unit, and not be made for the sole purpose of a beneficial regulatory capital treatment.
- This would mean, for example, that a bank should not be able to securitize assets it originated and (via an external rating) secure a materially lower capital charge than the on-balance sheet charge, unless material risk has been transferred or the transaction has a clear purpose other than capital arbitrage. In situations where a supervisor is not satisfied that these conditions hold, then an additional charge should be included in Pillar II.

#### Use of external ratings

The use of external ratings should always be allowed with the RBA risk weights if an external rating exists.

#### Use of internal ratings

We advocate that internal ratings should be permissible for securitization – related exposures, for use in conjunction with the RBA risk weights.

However, we recognise the need to impose a certain standard of uniformity on banks for this specific purpose, because of the possibility of widely differing calculations at this stage in the development of risk management techniques for securitizations.

Therefore we propose that use of internal ratings for securitizations should be subject to special validation, along the same lines as for specialised lending. The ratings process for securitizations would be expected to be a dedicated and specialised process differing from AIRB rating generally, and would in particular be expected to run along the lines of the published rating agency approaches.

In this respect we are contradicting our own recommendation that the ANPR should not be prescriptive, but we believe the approach to securitization should be the beginning of a gradual process as better and more transparent techniques for measuring the associated risks are developed.

#### Supervisory Formula

Although this formula has been criticised as too complex, it or something similar is needed if banks are to be permitted to assess capital for securitization tranches any way other than by intermediate assignment of a rating. We believe it is important for banks to have this direct approach to calculating capital available.

We have advocated allowing internal ratings subject to guidance ensuring these ratings are set along lines already established by rating agencies. In practice, the same methods used to get a rating may well lend themselves to capital calculations, and it would be frustrating for a bank to have to come up with a rating and use the RBA risk weight in that case.

Therefore, we recommend:

- Retaining the Supervisory Formula, preferably simplified by removal of the “add-ons”  $\tau$  and  $\omega$ , floor and deduction below KIRB.
- Allowing other approaches based e.g. on the rating agency approach, but the bank should be able to compare to the SFA and delineate differences and if required, perform overview quantitative comparison to the SFA on real transactions to illustrate broad comparability of results.

#### RBA risk weights

The calibration of the RBA risk weights has been the subject of much debate, but we believe the current calibration is satisfactory, and cannot be shown definitively to be high or low on current knowledge. Accordingly, we are satisfied with the RBA risk weights as proposed.

The evidence we have reviewed indicates that approaches such as the SFA, which base capital directly on an assessment of underlying pool risk, can give very different results to the RBA approach for actual transactions. In some cases the SFA type model gives much higher or much lower results, and the spread of these results is too wide to allow us to draw meaningful conclusions. However, we have concluded from a review of the empirical and theoretical evidence that there is no strong case for a recalibration of the RBA risk weights.

#### Liquidity facilities

Liquidity facilities are conduit facilities satisfying the definition at paragraph 538 of CP3 or those in the ANPR (page 86). These facilities are securitization exposures, and under the current proposals the extender of the facility is an originator, so that were it not for the concessions available to liquidity facilities, it would always be necessary to use the SFA or, in the event KIRB cannot be calculated, deduct the facility from capital. This gives rise to the unsatisfactory “cliff” effect mentioned above.

Furthermore, the definition of liquidity facility in both CP3 (paragraph 538) and the related definition in the ANPR (page 86) are difficult to interpret. As a consequence, it has been unclear to us whether or not our own exposures qualify as liquidity facilities for these purposes.

CP3 offers two special means of calculating capital for liquidity facilities:

- External ratings and RBA risk weights may be used by originators of liquidity facilities (CP3, paragraph 600).
- The “look through” approach is available to originators of liquidity facilities on an exceptional and temporary basis (CP3, para 603).

The ANPR contains only the look through concession in a slightly modified form (page 87), reflecting the absence of a standardized approach in the ANPR. There is no allowance of external ratings corresponding to CP3, paragraph 600, but nevertheless the ANPR asks (page 87) about use of *internal ratings* for liquidity facilities.

If our proposals above were adopted, there would be no need for a regulatory definition of liquidity facility, since the distinct capital treatments that apply in the case of liquidity facilities would apply to all securitization exposures. We believe the simplification achieved by this proposal would far outweigh any additional uncertainty in overall prudence. These proposals include use of internal ratings for liquidity facilities subject to the conditions set out above.

If our proposals are not adopted, then we would ask that the ANPR be modified to allow the treatment of liquidity facilities by the use of an external rating and the RBA risk weights. This method is already available in CP3 (paragraph 600) and so represents one of the few cases in which the ANPR is more restrictive than CP3.



## **4. Equities: ANPR approach**

### **4.1. Overview**

The treatment of equity exposures outlined in the ANPR follows the “market – based approach” of the New Accord, which in essence is a proposal for banks to use their internal, economic capital allocation models at 99.0% confidence over a quarterly time horizon. We strongly support this approach as a pragmatic solution that recognises the value of, and encourages, internal modelling.

The ANPR does not prescribe any particular model, merely stating the time horizon and confidence level parameters and encouraging general consistency with historic experience, although it does propose ongoing minimum standards for such models. We approve of this as the appropriate way to ensure a degree of uniformity in the modelling, while recognising the value of allowing development of individual approaches that we hope will in due course be extended to credit risk generally.

### **4.2. Floor risk weights**

Like the New Accord, the ANPR intends to apply floors at 200% and 300% for private and public positions, respectively. We understand the requirement as a mechanism to ensure that capital levels for equities are reasonably uniform while allowing diverse approaches. However, we believe that it should be clarified that these floors would apply at the total portfolio level, once the capital charge is calculated, rather than at the individual level. In other words, the constraint imposed by the floor should be that the portfolio level capital is greater than or equal to the charge calculated by applying the floor risk weights to each position and then summing.

We suggest this because comparison at the individual asset level immediately presumes that the internally modelled capital requirement has been allocated to individual positions. While it is our internal practice to do this for our positions, there are various technically different ways to allocate, apportion or represent capital at the individual asset level (for example, capital can be on a stand-alone or on an allocated basis). Hence, to avoid differing interpretations, the rule should be applied at the portfolio level.

### **4.3. Grandfathering provisions**

The ANPR includes proposals to exempt currently held equity investments from the new rules for a ten-year transitional period. We strongly support this proposal, which recognises the undesirability of pushing banks into disposals of illiquid equity holdings. Some sales of equity investments and a restructuring of the role of equity is bound to take place as a result of these rules, and we believe the Agencies correctly recognise the need for this change to take place gradually and in a manageable fashion over a reasonable time horizon. We encourage U.S. regulators to work with the Committee to ensure that the New Accord reflects this approach specifically and globally, so as to avoid market disruptions that could occur with disparate cross-border implementation.

## **5. Technical issues--Operational Risk**

### **5.1. Definition of Operational Risk**

We note that the ANPR definition of operational risk in paragraph 10 (first bullet point) of Attachment 3 diverges from the widely accepted CP3 definition. Internationally active banks would find it extremely difficult to implement an AMA if there are multiple definitions of operational risk across the various jurisdictions in which they operate. We refer in particular to the following statement: "... failure to comply with laws as well as prudent ethical standards and contractual obligations". While we agree that "failure to comply with laws and contractual obligations" is clearly an operational risk, "prudent ethical standards" are not documented, evolve rapidly over time and vary across jurisdictions. Therefore, we believe that compliance with "prudent ethical standards" needs to be assessed within reputation risk, and hence outside the scope of operational risk. We would suggest that the ANPR use precisely the same formulation as CP3 paragraph 607 to define operational risk under paragraph 10 (first bullet point).

### **5.2. Dependency**

We welcome the recognition in paragraph 65 of Attachment 3 that, under a top-down approach, explicit assumptions regarding dependence are not required. This is a significant advance from the CP3 language. However the requirement that, if the historic dependence assumptions embedded in the top-down approach are uncertain then conservative assumptions must be made and a "qualitative adjustment" be incorporated, will lead to overly conservative capital estimates. This results from the fact that there will never be enough data to estimate empirically with certainty the dependence between risks.

In the absence of substantial data to the contrary, there should not be a presumption that risks are adversely correlated. A qualitative approach to the estimation and recognition of correlations must be allowed within the AMA to allow the natural diversification of operational risks to be recognized, and should be reflected in the rules.

### **5.3. Loss collation threshold**

We also welcome the recognition in paragraph 40 of Attachment 3 that loss data thresholds may be tailored to the risk profile of different business units. We also welcome the lack of any quoted examples of loss thresholds, unlike in CP3.

We strongly believe, however, that only large losses are relevant to the determination of capital for operational risk and would expect the loss thresholds used within CSG to reflect this, for example \$500k for investment banking. This threshold has been established by reference to our capital base, which is in the order of \$10bn for that area; hence a \$1m loss represents approximately 0.01% of our capital base. A loss collation threshold set at 0.01% of our capital would be more reasonable for the purpose of capital estimation (although some might argue that that is still too low, and might focus excessive attention on small, fairly common events rather than the rarer but more meaningful ones). Such a threshold would capture a significant portion of the overall total of operational risk loss at most institutions and be a practical way to incorporate the loss events relevant for a capital discussion.

It can be demonstrated mathematically<sup>10</sup> that the required capital to cover losses under a certain threshold is equal to the average annual aggregate value of these losses (i.e., the expected amount of these losses). This result can be used to estimate the capital effect of any losses not captured as part of any loss distribution and further reinforces the argument that small losses are irrelevant to the determination of operational risk capital.

#### **5.4. Soundness standard**

The ANPR refers in a number of places to a soundness standard for operational risk of a one-year holding period and 99.9% confidence interval. While that statement is appropriate as a qualitative guideline, it should not be seen as statistical standard. As mentioned above, there is not enough relevant data to allow a bank to demonstrate the “1 in a 1000 year” soundness standard (which is implicit in the 99.9% confidence interval), and therefore it will not be possible to determine whether this standard has been met. We believe that a statement recognizing that this soundness standard is inherently qualitative, and does not require an implied statistical validation.

Paragraph 57 of Attachment 3 also indicates that, due to the uncertainty and potential error implicit in the evolving nature of operational risk measurement, a degree of conservatism will need to be built into the framework. The requirement to use conservative assumptions and to build in “degrees of conservatism” will increase the confidence standard to beyond the 99.9% confidence level and will further erode the capital incentive of the AMA compared to the Basic Indicator approach. Thus we believe that the requirement to build in conservative assumptions in many places within the operational risk measurement framework should be removed.

#### **5.5. Operational risk reporting requirements**

Paragraphs 28 and 29 of Attachment 3 require that AMA institutions report on at least a quarterly basis the results from the measurement system, and that the reports should summarise a prescribed list of information.

While the production of reports for management purposes (e.g., Key Risk Indicator reporting) is relevant on a quarterly basis, operational risk (unlike market and credit risk) capital levels do not vary significantly over short periods of time. Therefore, we do not believe that operational risk needs to be calculated as frequently as quarterly, particularly for business lines such as investment banking. We would suggest that the requirement to calculate the operational risk capital measure be on at least an annual basis.

The prescription of the content of the operational risk reports may divert senior firm- and business-unit management's attention from the tools and techniques that it believes are most appropriate for the management of operational risk within each institution. The potential result is that this prescription may hinder rather than assist in

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<sup>10</sup> This mathematical result indicates that the quantile of a combined population of large and small losses is estimated as the quantile of the large losses plus the expected value of the population of small losses. This result has been published by Tasche (2000) “Conditional expectation as quantile derivative”, and by Gouriéroux C, J-P Laurent and O Scaillet (2000) “Sensitivity analysis of values at risk”, Journal of Empirical Finance 7.

the effective management of operational risk. We therefore believe that the prescription contained in these paragraphs should be removed.

Also, paragraph 4 of Attachment 3 requires that operational risk governance processes be “established...in a manner comparable with the treatment of credit, interest-rate and market risks.” The meaning of this language is not clear and could be misinterpreted; it would be inappropriate, for example, to establish a framework for operational risk that is built on market risk concepts such as limits, flags, ratings and sensitivities. These are useful within the market and credit management frameworks, where positions are taken by choice and exposure can be measured definitively. Operational risk is a fundamentally different problem, and attempting to address it without recognizing those deep differences is conceptually faulty and potentially quite harmful.

#### **5.6. Operational risk capital and the incentivisation of management**

Paragraph 28 also suggests that operational risk reports will create incentives to improve operational risk management. We believe that it is not possible for any AMA model to closely replicate the size and distribution of the actual operational risks in a bank, and thus any potential management incentives provided by AMA models may not actually reduce the true operational risk. Indeed, creating a pressure for “efficient capital management” will naturally divert at least some resources from managing the real issue to managing the number instead. This is the risk of “false reliance” on the model, a risk that is particularly relevant in operational risk given the current state of modelling. We believe that the requirement that any AMA provide incentives to improve management behaviour may actually detract from established and effective (qualitative) risk management practices, and that such a requirement should be removed. Incentives for improved operational risk management are best derived from the management framework, not the measurement framework.

#### **5.7. Independent firm-wide risk management function**

Section V of Attachment 3 lays out the three key components that must be evident in AMA institutions, i.e., an independent firm-wide operational risk management function, line of business management oversight and an independent testing and verification functions. The document also details the requirements and responsibilities of each of these functions.

Unfortunately, this section does not allow banks the flexibility they may need to accommodate the required functions in business areas other than those stated. For example, a firm with only two large business units may have strong operational risk functions at the business unit and have a small operational risk function at the corporate centre. Under the proposed requirements, many of the functions currently being performed satisfactorily in the firm’s business units may have to be transferred to the corporate centre to meet these requirements. This would not be the optimal solution, and could potentially weaken the overall operational risk management framework.

Our bank, like others that will be governed by the Basel II regime in the US, is a complex, geographically dispersed organization. In our case, we have chosen to build a network of operational risk management functions, subject to central oversight. We believe that the risks can be best managed close to the business units where the understanding of the activity and its associated risks resides. Segregation of the centralised operational risk management function from the business units could weaken

the operational risk management framework in the firm. This downside could more than offset whatever added benefit may be derived from the centralisation of these functions.

The key requirement is that the required responsibilities of the firm-wide management function (laid out in paragraphs 20 and 21) are achieved to supervisor's satisfaction and without undue hindrance from business unit management. If these conditions are met, where this function resides within the organisation should not matter.

Therefore, we believe the prescriptive nature of the requirements of Section V should be relaxed to allow more flexibility as to where functions are performed within each organisation.

## **6. Other technical and conceptual issues**

### **6.1. Expected loss (“EL”) and unexpected loss (“UL”)**

This issue whether capital should be “based on a framework that allocates capital to EL plus UL, or to UL only”, is regarded as fundamental by many commentators and is raised by the ANPR document (ANPR, page 25, question). A standard view is that “capital is for unexpected losses, expected losses being covered by pricing and provisioning”<sup>11</sup>. On October 11 2003, during this ANPR consultation period, the Basel Committee altered the New Accord to “adopt an approach based on unexpected losses.”<sup>12</sup>

Although the Basel Committee’s recent proposal (outlined in their press release) does not form part of the ANPR, we have synthesised our comments on the proposal together with an explanation of our views on EL-UL. Our overview analysis is as follows:

- We do not see a significant conceptual element in the EL-UL issue. Instead, we regard the issue as consisting of two technicalities; firstly, the degree to which future margin income is sufficiently certain to be recognised in capital, and secondly the correct counting of reserves.
- The Basel Committee’s October 11 proposals align the presentation of capital requirements, and hence of published capital ratios, with existing internal practice at most banks, where economic capital typically corresponds to the “UL” element of capital. In this respect, we support the proposals.
- However, it is important to bear in mind that the changes, apart from removal of recognition of future margin income for qualifying retail exposures, are essentially presentational. In effect they merely shift EL and specific reserves from one side of the solvency equation to the other.
- Because the main changes are presentational, they do not justify, as the Basel Committee implies in its press release, the removal of the offset for future margin income. The key consequence of the proposals is that there is a trade-off for banks between the benefit of allowing additional specific reserves, and the capital cost of higher risk weights for qualifying retail assets. It is not clear what motivation the Basel Committee has for wanting banks to be faced with this trade-off.

#### **6.1.1. Analysis of the Basel Committee’s proposals of October 11, 2003**

We briefly analyse the proposals in terms of their effect on solvency and capital ratios. Throughout this section “Current” and “Proposed” refer to the Basel II proposals before and after October 11, respectively.

##### Notation

E = Basel II EL capital

U = Basel II UL capital

<sup>11</sup>For example, the IIF steering committee stated in 2001, and has as we understand it maintained subsequently that “Capital serves to cover unexpected loss, which is defined as the volatility of expected loss estimates”, and that inclusion of expected loss in capital requirements is double counting.”

<sup>12</sup> Basel Committee on Banking Supervision, Press Release “Basel II: Significant progress on Major Issues”, 11 October 2003.

$T = T1 + T2$  = total ( $T1 + T2$ ) capital owned, before allocation of reserves into capital

$G$  = General Reserves

$S$  = Specific Reserves

$F$  = Future margin income offset ( $F$  is only non zero for qualifying retail)

#### Effect on Basic Solvency

The current and proposed versions of Basel II have essentially the following solvency requirements:

*Solvency (Current):*

$$\max(0, E - S - F) + U \leq T + G$$

In other words, specific reserves can be offset against EL capital requirements only, while general reserves are added to ( $T2$ ) capital (subject to a limit of 1.25% of RWA).

*Solvency (Proposed):*

$$U \leq T + G + S - E$$

where the last three summands form the “excess” or “shortfall”. Excess is limited to 20% of Tier 2 capital, replacing the cap on general reserves.

These two solvency requirements are identical apart from the removal of  $F$  for banks that have aggregate specific reserves and FMI offset less than the Basel EL component of capital.

For banks that have large specific reserves  $S$ , there is a benefit in that under the proposals, no direct limit would apply to the amount of such reserves that can be recognised as a deduction from capital requirements or as part of capital.

#### Effect on total capital ratios

The effect of the proposals on capital ratios may be summarised as follows. All capital ratios will rise except those of banks with less than 8% capital, and specific reserves less than EL, the ratios of which will fall. (As above, we are ignoring the effect of the FMI offset removal and any recalibration of the risk weights.)

The effects on capital ratios are purely due to the effective removal of the cap on specific reserves, and the technical effect of adding terms to the top and bottom of the fraction representing each ratio – there is no other “fundamental” effect.

	Specific reserves > EL	Specific Reserves < EL
Well capitalised (Capital > 8%)	Increase	Increase
Poorly capitalised (Capital < 8%)	Increase (may increase above 8%)	Decrease

### 6.1.2. Future margin income

It would have been valid, and not a double count, to include FMI in capital along as part of “excess”, where as for qualifying retail, FMI is currently an offset to capital requirements. The proposed solvency requirement would have been

$$U \leq T + G + S + F - E$$

Such inclusion would have been analogous to the current recognition of FMI, and not a new benefit, so the committee’s statement in their 11 October press release, that the future margin income offset for retail is “no longer necessary”, is difficult to interpret.

We believe this is an important point for conceptual clarity. It is not, for clarity, a matter of material capital impact for Credit Suisse Group, however, so having pointed out the conceptual status of the Committee’s decision on this point we make no further comment.

### 6.1.3. Treatment of general reserves

The ANPR proposal (ANPR, page 48)

The ANPR proposes a treatment of general reserves that mirrors the New Accord, including a favourable treatment of reserves in excess of the 1.25% of RWA cap on the amount of general reserves eligible for inclusion in Tier 2 capital. In terms of the solvency requirement (based on the current rules), this rule would have been written for the case of excess general provision:

$$\max(0, E - S - G_2) + U \leq T + G_1$$

where  $G_1$  is the maximum amount of general reserves allowable in capital and  $G_2$  is given by

$$G_2 + G_1 = \min(G, E - S)$$

with the effect that the maximum total recognition of general reserves (on either side of the solvency equation) is limited by the level of EL<sup>13</sup>, with the 1.25% cap performing the subsidiary role of determining the amount of reserves that can be included in T2 capital.

<sup>13</sup> We have assumed in this interpretation that specific reserves are deducted first from EL, as the ANPR did not specify how this proposal interacts with specific reserves.



#### Comment

We would be inclined to support this proposal because it gives further recognition of general reserves beyond the 1.25% cap. However, we do not believe that general reserve recognition should be capped based on levels of EL as a conceptual matter. Rather, we believe that caps on the use of general reserves in capital reflect the quality of those reserves as available capital, not a classification of the level of confidence at which they are calculated as an expected or unexpected level of loss. Accordingly, we would prefer simpler hard caps on the use of general reserves - for example, a 2.50% cap on total use of reserves either as an element of capital or an offset to capital requirements.

#### Effect of the October 11 proposals

Nevertheless, we have not developed this suggestion in detail. Although it has not been stated explicitly, we believe this proposal has been made redundant by the 11 October proposals of the Basel Committee, since these include a new and different cap on the recognition of general reserves.

In particular, since the proposed cap is relative to the inclusion of excess combined general and specific reserves, reserves in excess of the cap are no longer uniquely identifiable as general or specific. Further detailed guidance on this issue should be considered to allow us to comment in full on the 11 October proposals within the comment period for those proposals.

### **6.1.4. Treatment of specific reserves**

#### The ANPR proposals (page 50)

This is another area where the proposals of the ANPR interact with the Basel Committee's proposals of 11 October. ANPR (page 50), proposes a capital charge for a defaulted loan given by

$$\text{Charge} = \max (\text{EAD} \times \text{LGD} - \text{Specific Provisions}, 0) + 8\% \times (\text{EAD} - \text{Specific Provisions})$$

The second summand is a proposal of the ANPR that is not contained in the New Accord. The additional term is to ensure a non-zero capital charge, where the New Accord's charge (the left hand summand only) is zero where specific provisions equal or exceed  $\text{EAD} \times \text{LGD}$ .

Under the 11 October proposals, Specific Provisions appearing in this equation should form part of the excess or shortfall calculation instead, so that the proposal will require modification. We propose that the simplest modification to the charge to reflect this is:

$$\text{Charge} = \text{EAD} \times \text{LGD} + 8\% \times (\text{EAD} - \text{Specific Provisions})$$

where the second instance of Specific Provisions should be retained, as it is still needed to form part of the net book value calculation on which the ANPR's 8% charge is based.

#### Comment

We have some sympathy with the ANPR desire to ensure non-zero capital requirements for all credit bearing assets.<sup>14</sup> Nevertheless, we can still see a need to ensure that LGD estimates for defaulted debt used in capital calculations are set at prudent levels, which is, we believe, the underlying issue here.

This proposal would, however, would according to our estimates give rise to reasonably material additional charge for many banks, especially toward the end of a credit cycle, when other stresses will be hitting the bank. If adopted therefore, we believe that the committee should reduce other areas of over-conservatism embedded in the New Accord, so that at least the current balance of capital is retained.

Importantly, this change would also incentivise banks to dispose quickly of defaulted assets, thereby favouring the sale method of disposal over the more traditional working out of debt. We believe this would be an undesirable consequence, partly because of an unintended procyclical impact: Recent studies based on defaulted debt prices have shown that these prices tend to move with the business cycle, while there is no corresponding evidence for ultimate recoveries from workouts.

Because of these consequences, we ask the agencies to consider if their objective of ensuring robust and realistic LGD estimates for defaulted debt could not be achieved better under a "Pillar II" supervisory review of these estimates along with the other key parameters of the IRB approach, without imposing a blanket additional charge.

#### **6.1.5. Summary of comments on EL-UL**

##### The October 11 proposals of the Basel Committee

- We support the Committee's proposals primarily because they align regulatory and internal risk measures. We note, however, that the proposals make no fundamental change to the Basel II notion of solvency.
- It is unclear why the Committee felt that it was no longer necessary to recognise Future Margin Income under their proposals, as these proposals do not conflict with continued recognition of this income as an element of capital or an offset to capital requirements, in addition to the proposed recognition of reserves. However, as an institution we do not object to the removal of future margin income recognition, as it leads to the simplification of the New Accord and was not a material driver of capital for us.
- The treatment of future margin income is our only essential disagreement with the October 11 proposals, and we support with the ANPR proposals for general and specific reserves and defaulted assets.

##### Treatment of general reserves

- We have the following observations to the ANPR proposal (page 48) regarding the treatment of general reserves as an element of T2 capital, up to a limit and as an offset to capital requirements up to a total limit governed by EL levels
- Reserves that cannot be recognised either as T2 capital or as a deduction from capital requirements should have no further recognition. We see no reason why

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<sup>14</sup> We note that under the recent EL-UL proposals of the Committee, it would appear that these zero capital charges will no longer appear, as specific reserves will no longer be subtracted from capital requirements.

they should be deducted from RWA, as such an approach has little effect but to overcomplicate the rules.

- We have had some difficulty reconciling the ANPR proposal with the subsequent October 11 announcements of the Basel Committee with respect to certain aspects of the treatment of reserves. In particular, under the October 11 proposals an ineligible portion of reserves will be a portion of the sum of general and specific reserves, so will not necessarily be regarded as general or specific in nature.

Treatment of defaulted assets and specific reserves

- We fully agree with the substance of the ANPR proposed charge for defaulted assets at page 50, namely the application of a small additional charge based on the unprovided or residual value of the asset.
- We believe this charge would remain valid under the October 11 proposals.

## **6.2. Rating systems**

### **6.2.1. Summary**

The New Accord and its national implementations, particularly in the US, have the implicit backing of leading regulatory authorities and their staff and respected commentators. As a result the New Accord will, we believe, inevitably become a universal yardstick for assessment of risk management systems and methodologies.

We regard this as a major benefit of the New Accord. Basel II has prompted most large banks, including Credit Suisse Group, to reflect more carefully on their risk management processes and capital allocation methodologies and test those methodologies against a common standard.

In view of its likely role, we have already remarked that Basel II and its national implementations should be cautious in prescribing how to do risk management even in the usual case where the guidance given is intrinsically valid and rational. One area in which we disagree with the guidance is in the ANPR's attempted description and classification of rating systems.

Fault lies with the industry. Practitioners have neglected this difficult area and orthodoxy on the subject of rating systems includes a number of fictions. The ANPR document is a very good attempt to rise above the general standard, but we believe its description of the rating systems could be improved. We present our observations in detail below, and suggest revised text for the ANPR at Section **Error! Reference source not found.6.2.4.**

### **6.2.2. Through the cycle and point in time**

Because unstable ratings are associated with procyclicality, the New Accord and ANPR try to distinguish rating systems on the basis of the stability of their output and inevitably express approval for systems that have less volatility. The ANPR does this by giving prominence to a popular classification of rating systems into "through the cycle" and "point in time" in its description of rating philosophy (IRB Implementation Guidance, page 16). Other influential versions of the New Accord go much further: The UK document announces that the industry "has not yet moved to adopt through the cycle rating systems", which it describes as aiming "to leave ratings unchanged over the course of the business cycle".

In practice, some rating systems are more volatile than others, but volatility should not be viewed negatively simply because it leads to effects which may be difficult to manage. We showed in our CP3 comments (CSG CP3 response, p10) that it is unreasonable to expect ratings not to move at all during economic change, and it is therefore questionable to motivate ratings volatility as a primary dimension along which systems are compared. In short, the guidance appears to say that ratings must aim to be stable, but must also not succeed too completely.

We present below a "through the cycle" rating system consistent with the ANPR definition, the output of which is no less volatile than a "point in time" system. The ANPR definition does not capture the real effects responsible for stability where it is observed. Unfortunately, we think these real effects would not be explicitly supported by the Agencies: out of date ratings, low granularity and reluctance to up / downgrade.

The primary objectives of rating system design should be discriminating power, prudence, consistency over time and responsiveness to new information. All these are

rightly set out in the ANPR. It is not clear on current knowledge to what extent stability of ratings is consistent with these objectives. As it may not be at all consistent, we believe stability should be a subordinate objective depending on the technicalities of the particular system.

In order to discuss the definition and other aspects of rating systems, we refer to the relevant paragraphs on page 16 of the IRB Implementation Guidance. We summarise this guidance below by paragraph, together with questions and comments that reflect our attempt to interpret the statements and guidance in concrete terms.

Statement	Comment
<b>Paragraph 1</b>	
<ul style="list-style-type: none"> <li>Point in time rating systems group obligors by their expected default frequency over the next year.</li> <li>Through the cycle rating systems group by an expected common default frequency over a wider range of possible stress outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>“Expected default frequency” is not well defined, as it could mean a statistical expectation, i.e., an average, or it could mean what the bank <i>judges most likely</i> to be the fraction defaulted by the end of the year. Within the scope of systems where the result is a statistical expectation, are included all types of rating system.</li> <li>The essence seems to be either that only one economic outcome is considered by the point in time approach, or perhaps that a range of outcomes is considered by weighted towards those most likely to occur in the short term, as opposed to weighted in a manner which is time independent.</li> </ul>
<b>Paragraph 2</b>	
<ul style="list-style-type: none"> <li>A Merton model is commonly believed to be point in time, but may be through the cycle.</li> </ul>	<ul style="list-style-type: none"> <li>It is not clear what inference a reader should draw from this statement; i.e., it is not clear whether the fact that something is “commonly believed” represents guidance.</li> <li>The usual Merton model seems to be <i>through the cycle</i> according to the definition in paragraph 1, because the PD is an integral over a range of outcomes for the systematic factors. We have tried to see how the Merton model might be given a concrete point in time or through the cycle form, as explained below.</li> </ul>
<ul style="list-style-type: none"> <li>Through the cycle rating systems group obligors according to their default frequency if they were to experience distress.</li> <li>Through the cycle rating systems consider hypothetical stress scenarios</li> </ul>	<ul style="list-style-type: none"> <li>The definitions in paragraph 1 above appear to make the distinction between “point in time” and “through the cycle” depend on whether or a range of economic outcomes, or a single outcome is considered.</li> <li>But the further descriptions here suggesting instead that a through the cycle rating depends upon “distress”, rather than on a range of outcomes. Is “distress” a range of outcomes?</li> </ul>
<b>Paragraph 3</b>	
<ul style="list-style-type: none"> <li>Changes in through the cycle ratings will be less influenced (than point in time ratings) by the actual economic environment.</li> <li>Rating agencies are commonly believed to use through the cycle approaches.</li> </ul>	<ul style="list-style-type: none"> <li>This is an assertion about the outcome.</li> <li>If it were true, then we would expect the lower volatility of “through the cycle” PDs or ratings to be demonstrable using a quantitative model representing a through the cycle rating system.</li> <li>Our own quantitative experiments with through-the-cycle and point-in-time versions of the Merton model (according to the definitions here, as we understand them) suggest that no such effect holds.</li> <li>It is not clear whether this statement represents guidance.</li> </ul>

### 6.2.3. Creating point in time and through the cycle in the Merton model

The guidance above does not give a clear definition of “through the cycle”; further guidance on this point would be invaluable.

If “through the cycle” were a *meaningful* characteristic of rating systems, we believe it could be pinpointed directly within a model rating system. Any properties said to be

associated with the characteristic should flow provably from the definition, rather than just being asserted. A definition that cannot be “represented” in this way is questionable, since the use of a definition in practice is critical to real rating systems.

Hence, we tried to create “concrete” point in time and through the cycle ratings within the Merton framework, as follows<sup>15</sup>.

In the Merton model the state of the world at the horizon is represented by a random variable that can be taken to be standard normal and summarises the index component of asset returns over the period. If the starting net assets of a company are  $c$  and the subsequent return on the asset index is  $x$ , then in the Merton model the probability of default of the company in the period is

$$P(x) = N\left(\frac{-c + \rho^{1/2}x}{(1-\rho)^{1/2}}\right)$$

where  $N$  is the cumulative normal distribution function and  $\rho$  is the “asset correlation”. The probability of default is conditional on a particular realisation of  $X$ , a “scenario”. If we consider all scenarios with their weighting according to the normal distribution of  $X$  we obtain the unconditional PD as

$$P(x) = \int_{-\infty}^{\infty} N\left(\frac{-c + \rho^{1/2}x}{(1-\rho)^{1/2}}\right) n(x) dx = N(-c)$$

where  $n$  is the normal density.

The first of these two probabilities of default focuses on a specific scenario, represented by  $x$ . If this asset return is always set to one judged most likely in the coming year, then we believe it to be a point in time rating according to the definition:

$$P_{p-i-t}(x) = N\left(\frac{-c + \rho^{1/2}x_{year}}{(1-\rho)^{1/2}}\right) \quad (\text{PIT})$$

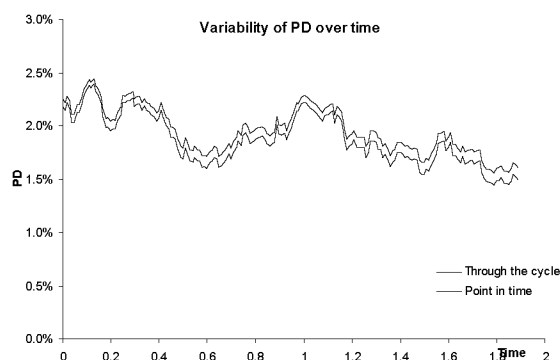
On the other hand a through the cycle rating is one that, according to the definition, either focuses on a stress scenario or on a range of scenarios. The latter version appears, we cautiously assume, to be satisfied by the unconditional probability of default

$$P_{t-t-c}(x) = N(-c) \quad (\text{TTC})$$

The “through the cycle rating” is supposed to be less volatile. We can check this directly. We assume, as required of judgmental inputs in the ANPR, that  $x_{year}$ , the prediction within the point in time model, is consistently set to a mildly pessimistic outcome represented in equation (PIT) by  $x_{year} = +20\%$  (i.e. an assumed  $-20\%$  return on asset prices).

The results of the two formulae (PIT) and (TTC) give the PD that the two styles of model would assign to an obligor as its asset value varies over time. The results we obtained are as shown below:

<sup>15</sup> It is possible that there are other quantitative rating models of which “though the cycle” and “point in time” versions could be defined and that these would have different properties, but we take our inability to produce the desired characteristics with the Merton model to be serious enough to warrant reporting.



The two rating “systems”, which are after all just similar formulae depending on the same volatile information namely the asset quality  $c$ , give similar results and have essentially indistinguishable degrees of volatility over time.

Unless this or a similar exercise can be reperformed, possibly with a different system, but in an equally explicit way to demonstrate the production of ratings or PDs with definite stability over time, without simply smoothing or lagging data, then we consider through the cycle ratings to remain undefined and stability over the cycle to be unattainable. We recommend therefore that no Basel document should make reference to this concept or the equally ambiguous concept of point in time.

#### **6.2.4. Our recommendations on rating systems and philosophy**

We recommend the text on page 16 of the IRB Implementation document be replaced down to the bottom of page 16, as follows:

**Banks must adopt a ratings philosophy, containing a clear description of the way in which assigned ratings are believed to reflect the behavioural credit characteristics of the obligor.**

**Banks should assess the ongoing volatility of capital requirements they may expect to experience. A bank’s capital management policy must recognise and actively plan for capital variations assessed to be plausible.**

In the IRB framework, banks assign obligors to groups that are believed to share common default characteristics. To achieve this successfully a rating system must have sufficient granularity and discriminating power, as explained in the ANPR document, at page 16. However, rating systems with similar discriminating power may differ markedly in other respects; in particular, in their volatility in response to economic change over time. In the AIRB framework, ratings volatility transmits via the risk weights to volatility of capital requirements, which can present a management challenge as banks will be expected to maintain adequate capitalisation at all times.

In order to ensure that risks associated with capital volatility are adequately understood and managed, a bank should assess the level of volatility likely to be associated with its choice of rating system, and be able to demonstrate its capacity to manage these levels of volatility. This competence is part of the minimum requirements for IRB qualification.

Different rating systems place different weights on various economic outcomes, either explicitly (as in some implementations of the Merton model, where economic outcomes are characterised by asset price outcomes from a given

statistical distribution) or implicitly, and these relative weightings, their tendency to change over time or other aspects of the rating system will affect the changeability of ratings assessments.

It is acceptable, but not required, to include economic forecasting into the weighting of outcomes, for example by focusing on borrower performance in a forecast economic scenarios. This may also involve judgments, which will tend to change over time and may tend to compensate for changes to the current condition of a borrower, so reducing ratings volatility. However, forecasting should be balanced and not result in bias towards optimistic economic assessments, and should as far as possible make consistent assumptions over time. Furthermore, a bank should assess the extent to which forecasting elements of their rating system improve the discriminating power of the system, reduce rating volatility or have other beneficial effects.

The inclusion of forecasting, and other aspects of rating systems may tend to make ratings more or less volatile over different time scales. Volatility may be either short term, with ratings migrations that tend to change and reverse over short intervals, or the rating system may exhibit more general response to cyclical change. There is no presumption that a less volatile system is preferred, subject to the other validation requirements for rating systems and provided supervisors are satisfied that the institution is competent to manage any resulting capital volatility as explained above.

### **6.3. Estimating and validating PDs (IRB Supervisory Guidance p29 – 38)**

#### **6.3.1. Introduction**

Although we make certain suggestions on the classification of rating systems in the New Accord and the ANPR, we strongly support ANPR guidance on assessing and validating PDs by rating.

It is possible to use any rating system to assign PDs provided only that the system has good discriminating power, i.e., it does not assign similar ratings to dissimilar credits. The ANPR and the IRB draft supervisory guidance documents remark consistently on this point:

ANPR page 26 “The internal rating would have to be produced by a rating system that meets the A-IRB infrastructure requirements . . . which are intended to ensure (among other things) that the rating system results in a meaningful differentiation of risk among exposures”.

IRB Supervisory Guidance, page 16 “In the IRB framework, a bank must assign obligors to groups that are expected to share common default frequencies. That general description, however, still leaves open different implementations . . .”

It is the distinctions made elsewhere in the IRB Supervisory Guidance between the “different implementations” referred to above, that are the source of our concern and we hope to have made this point clear.



### 6.3.2. PD estimation

ANPR guidance on PD estimation is much clearer than the corresponding guidance in CP3. In most cases we strongly support the ANPR. Our detailed comments on p29 – 38 of the IRB Implementation document are set out in the table below.

Ref	Guidance	Comment
<b>Key guidance where we fully support the statements made.</b>		
p31	"Estimates must capture average default experience over a reasonable mix of high default and low default years of the economic cycle. . . . The emphasis should not be on time span; the long-run average concept captures the breadth, not the length, of experience."	We emphatically support this guidance, which captures succinctly and accurately the statistical estimation issue at the heart of PD calibration.
p31	"If the reference data . . . should be calculated in this manner"	We strongly agree. The method specified amounts to equal weighting of each year, which is consistent with the underlying statistical approach and model.
p31 -	Further guidance and examples with the exceptions below	We support all of this guidance.
p32	Examples 1, 2b, 2c.	This example is clear and we agree with the reasoning that it shows a method consistent with the standard.
<b>Guidance where we question some aspects of the statements made</b>		
p31	"Statistical default prediction models may also play a role . . . model"	We agree with the ideas conveyed in this paragraph, but for complete clarity the word "prediction" should not be used, as the models described are not generally designed to be predictive except in a carefully defined statistical sense.
p32	Example 2a – PDs derived from a "default prediction model"	<p>This example has a rather complex structure which, in our opinion, conceals a "loophole" in that it effectively sanctions direct use of PDs from a "default prediction" model for setting risk weights, with, despite the appearance of the example, no actual averaging of those PDs over time or testing against actual default experience.</p> <p>To see this, suppose, as is permitted on page 31, the mapping to rating agency grades is done using the model PD itself – i.e., by assigning a narrow range of PDs to each grade (in any fashion) and assigning each obligor to that grade whose range contains the model PD.</p> <p>Then the model PD of any obligor in a rating grade at any time will be in the specified range, purely by definition, and the process of averaging over time would become trivial, returning a point guaranteed to be in the specified range. In effect the model would be being used directly to assign PDs and hence risk weights with the rating process playing no part.</p> <p>In practice from the guidance at page 21, a bank using a "default prediction" model will need to design and execute suitable tests that the PDs assigned by the model are not inconsistent with subsequent actual default experience, either each year or at least on average.</p>
p35	"Even a system that has been explicitly designed to replicate rating agency ratings may or may not be effective . . . formal mapping is still required"	<p>We are not sure how to interpret this guidance. A system that is designed to replicate external ratings appears to us to be performing the mapping, so that it is not clear what additional mapping is needed.</p> <p>We believe this is likely a matter of interpreting the guidance; a rating agency replication system must clearly be validated so that it is reasonable to suppose it is using similar criteria to the agencies, and additionally tested directly for ability to replicate existing external ratings. We believe these tests are what the guidance refers to, but they are tests of the mapping, as described on page 36 not existence of the</p>

		mapping.
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### 6.3.3. PD and LGD estimation and validation

On PD and LGD validation and backtesting, we again find that the guidance in the ANPR IRB implementation document is a marked improvement over that of CP3.

#### Page 20 – 21 Validation

We support the ANPR (IRB implementation guidance) provisions on validation of PD and LGD estimates and contrast them with the less helpful provisions of CP3:

IRB Implementation Guidance Page 21	CP3 paragraph 464
<p>"As part of their IRB rating system architecture, banks must implement a process to ensure the accuracy of their rating systems. Rating system accuracy is defined as the combination of the following outcomes:</p> <p>The actual long-run average default frequency for each rating grade is not significantly greater than the PD assigned to that grade.</p> <p>The actual stress-condition loss rates experienced on defaulted facilities are not significantly greater than the LGD estimates assigned to those facilities."</p>	<p>"Banks must regularly compare realised default rates with estimated PDs for each grade and be able to demonstrate that the realised default rates are within the expected range for that grade.</p> <p>Banks using the advanced IRB approach must complete such analysis for their estimates of LGDs and EADs. Such comparisons must make use of historical data that are over as long a period as possible."</p>

We note that the ANPR is appropriately direct about the essence of the parameter being tested, namely, in the case of PD, the long-term average (representing the unconditional average), and in particular not the realised PD in any given year.

#### Page 24 Backtesting

On page 24 the IRB implementation document states in respect of backtesting that:

"Banks must establish internal tolerance limits for differences between expected and actual outcomes."

We believe this means that a bank undertakes to react meaningfully and follow up appropriately where backtesting results provide a clear indication that a risk management model is not functioning correctly. However the same statement could be interpreted as meaning that any difference between any parameter (e.g., a PD or LGD) and its expected value is to be treated as an error requiring corrective action. Credit default data provides a relatively sparse data set, when compared to the rich data available in the world of market risk for example. Care should be taken to avoid "over-tweaking" credit assumptions, where such a change may not be statistically supportable. The CP3 statements above are also susceptible to this interpretation but it has largely been avoided in the text of the ANPR.



## **7. Answered questions from the ANPR**

*ANPR p14-15: What are commentators' views on the relative pros and cons of a bifurcated regulatory capital framework versus a single regulatory capital framework?*

Response:

We support the bifurcated system proposed by the Agencies. Although this approach initially surprised the international banking community we believe that it reflects the original objectives of Basel II, which were fundamentally concerned with risk activities of large, internationally active banks and banks of systemic importance. In the light of the complexity and associated set-up costs of Basel II, we do not believe that the New Accord is suitable for smaller banks given the nature of the US banking industry and in particular the limited international interests of smaller domestic US banks.

We believe that despite the important changes, including the new risk management paradigm introduced by the New Accord, the implementation of the New Accord in different jurisdictions will inevitably reflect the attitude towards supervision that prevails in those jurisdictions.

This opinion is confirmed by our review of the ANPR as well as a comparison between the ANPR, CP3 and the EU implementation documents. The ANPR reflects what we believe is a more rational and conceptual and intrinsically less prescriptive approach to regulation, as well as the fact that the regulatory regime envisaged by the ANPR is aimed at a small number of sophisticated institutions. In comparison, CP3 and the EU documentation are aimed at a broader, often less sophisticated audience because of the universal implementation envisaged in Europe.

These differences could result in inconsistent implementation in different world regions, and from that point of view they are not ideal. However, we generally support the implementation of Basel II as proposed by the Agencies and represented by the ANPR and, broadly speaking, regard the existing US style of regulation as more desirable. In particular, we believe it draws a better line between internal and supervisory responsibilities. Hence, we look to European regulators rather than to those in the US for change in this area, but would encourage U.S. regulators to work through the Committee to expressly amend the New Accord consistent with U.S. implementation.

*ANPR Page 20: Given the general principle that the advanced approaches are expected to be implemented at the same time across all material portfolios, business lines, and geographic regions, to what degree should the Agencies be concerned that, for example, data may not be available for key portfolios, business lines, or regions?*

Response:

The practical approach taken by most large banks is, we believe, to produce their most sophisticated approach for their core risks, and then adopt a modified approach based on the core approach for other, non-core businesses. We believe that many of the practical difficulties currently present in the New Accord would be eased significantly if this were permitted to a reasonable extent.

Non-core portfolios are characterised, among other things, by one or more of the following factors:

- low materiality

- lack of data / need to import parameters such as LGD from other portfolios / lack of local data
- primary focus from host, rather than home supervisor, and increased requirement to use expert judgment

We believe regulatory acceptance of internal views as to what is core or non-core, and acceptance within reason of non-core methods, is an important part of the supervisory presumption of competence we discussed in Section 2.

There will always be non-core portfolios and businesses where the literal standards of the IRB approach cannot be applied. “Non-core” will include geographic locations or asset types or simply intrinsic paucity of data, e.g., investment grade portfolio defaults. Therefore, we do not support characterising “transitional arrangements” for such portfolios.

We do not support systems of thresholds or fixed rules for determination of what is core or non-core for validation purposes. Choices of what is core or non-core have to be made by supervisors in their own judgement under Pillar II and in conjunction with banks.

The importance of accuracy in an aspect of the capital calculations should be judged relative to overall prudential standards for the particular institution, as well as in terms of effect on overall soundness which, as we explained in terms of the “sum of squares” in Section 2, may be minimal for many non-core portfolios.

This also interacts with the home host issue. In many cases non-core portfolios will also be subject to host supervisor scrutiny reflecting a lower level of materiality (one appropriate, for example, to the size of a local legal entity). This lower level of materiality should in general compensate for possible differences in methodology between home and host supervisors and enable home supervisors to directly rely on host validation.

*ANPR Page 25: The Agencies seek comment on the treatment of EL.*

Response:

Please see section 6.1 above for detailed response.

*ANPR Page 29: The Agencies seek comment on the proposed definition of wholesale exposures and on the proposed inputs PD, LGD, EAD, and M to the wholesale A-IRB capital formulas and on the proposed definitions of default*

Response:

Compliance with the definition

The role played by the definition of default in the ANPR and the IRB Guidance Document, as compared to CP3, again illustrates the generally more flexible tone of the ANPR. The statement of compliance with the definition at page 30 of the IRB Guidance Document is:

“The definition of default within the reference data must be reasonably consistent with the IRB definition of default.”

This guidance is preferable to paragraph 725 of CP3, which states that “Banks must use...” the reference definition. In our CP3 comments we requested an essentially similar change of wording in the New Accord itself (CSG CP3 comments Section 4.3).

#### Liquidation of collateral

We note that the ANPR document refers to liquidation of collateral when the borrower is otherwise unlikely to pay its obligations in full, as part of the definition of default.

In retail businesses, collateral is sometimes liquidated as a preventive measure when it is considered possible, but not actually likely that there will not be full repayment from the obligor. We would not expect such an action to trigger the definition.

#### The definition of default for historic data collation

We take this opportunity to refer to comments made to CP3 (CSG CP3 Response, Section 4.3) on definition of default.

- A definition of the state of default serves both to ensure early allocation of appropriate risk weights to defaulted assets, and to assist the collation of consistent default experience and history.
- The first application inevitably requires proactive early detection, but collation of default data takes place retrospectively, when in most cases the fact of default can be established by obvious signs and does not require application of a definition. This should mean that almost any reasonable definition of default will result in the same set of data points being collected, but should there be any difference the relevant characteristic of default should be the occurrence of a material loss or the liquidation of collateral, which events can always be ascertained in retrospect.

Hence we believe the definition of default should be apply to historical data only where defaults are not likely to be a matter of public record. In practice this means some retail data only. For corporate data at least, there should be a presumption that data consistent with public record, and agreeing with internal records of loss and / or collateral actions, is consistent with the definition.

As a corollary to this, we stated in our response to CP3 that we did not support paragraph 419 of CP3, which would require a default to be recognised whenever the definition is triggered, even if the obligor subsequently ceases to satisfy the definition and hence is removed from the default category. Such a reversal might be interpreted as non-occurrence of an actual default, but instead as a “false alarm”, and hence need not give rise to a data point. In view of the widely discussed difficulty of collating and adjusting data needed to satisfy the definition of default, we would advocate that supervisors accept a choice of treatments on this point to also be acceptable subject to reasonable compliance with the definition and underlying principles.

We commented in our response to CP3 (Section 4.4) that the reference period for LGD should be five years, as for PD, rather than seven years. We note that, like CP3, the ANPR does not attempt to explain the reason for this difference in requirement. The same argument applies to the reference period for EAD.

In our view, LGD should be defined in accordance with accounting measures (e.g., US GAAP) and not include indirect cost items such as of the expenses associated with the workout dept.

The ANPR and IRB Guidance Document follow CP3 in respect of maturity, except that the ANPR implements the advanced IRB approach and therefore does not refer to any standard 2.5 year maturity.

We generally agree with the definition of maturity, but we think that for simplicity, it should be acceptable to use nominal maturity rather than a weighted average cash flow calculation, provided this choice of method is reasonably prudent.

We believe that special difficulties arise in determining truly risk-sensitive and appropriate maturities for short dated repo-type products and for OTC derivatives.

We also believe that the maturity issue for these product types should be included in any review of the capital treatment of market-driven instruments (OTC derivatives, repos, securities lending and borrowing transactions, settling transactions and other similar transactions) that may be undertaken by the Committee.

CSFB has been actively involved with ISDA in developing industry proposals for the reform of capital treatment of derivative transactions, although not all aspects of the proposals have been fully developed. Maturity, in particular, remains a difficult issue.

*ANPR Page 33: Are the \$50 million threshold and the proposed approach to measurement of borrower size appropriate?*

Response:

We would prefer a different exposure thresholds also be available in addition to turnover, as financial statements are not always available in consolidated form for a particular date.

In practice, we would need to implement “grace period” or materiality assessment to soften the boundary and avoid the situation in which a customer moves back and forth between categories because it is close to the boundary. We believe these should be implemented and assessed under Pillar II generally, without the need for any specific provision for them in Basel II.

*ANPR Page 38: Is the \$1 m threshold appropriate for exposures to be treated on a pooled basis?*

Response:

We believe this threshold is appropriate.

*ANPR Page 34, 36: The Agencies invite comment on the merits of the supervisory slotting class approach in the United States.*

Response:

#### Supervisory Slotting Classes

We agree with the need for an approach that would allow banks that, although generally at the standards needed for access to the AIRB approach, do not have sufficient data with respect to their commercial real estate holdings to satisfactorily apply internal LGD and PD estimates directly to the calculation of IRB capital. We broadly concur with the slotting class criteria outlined in CP3 at Annex 4.

#### HVCRE

The ANPR, like the New Accord, has a special risk weight curve for “high volatility commercial real estate”, which differs from the ordinary wholesale curve only in the higher asset correlation, up to a maximum of 30% (ANPR, page 35) instead of 24%.

We agree that there is a certain amount of empirical evidence supporting this distinction, some of which is presented in the White Paper on Commercial Real Estate. However, we do not believe the difference between the HVCRE curve and the ordinary curve is material enough to warrant the additional complexity of having two curves and the exemptions from the HVCRE curve listed on page 36 of the ANPR.

*ANPR Page 37: The Agencies are seeking comment on the wholesale A-IRB capital formulas and the resulting capital requirements . . . Does the proposed A-IRB maturity adjustment appropriately address the risk differences between loans with differing maturities?*

Response:

Although there has been much progress in modelling credit risk in recent years, all credit risk models have significant flaws, and in many respects all (including the model underpinning the IRB approach) remain in some ways crude and simplistic. Recent advances in credit risk modelling have focused on the formal and mathematical properties of these credit risk models rather than on a deeper reflection of the nature of default risk, contagion and economic and sectoral change, and these fundamentals are not well understood. Decisive improvement may be slow to come, as many of the profound challenges in understanding change, uncertainty and behaviour that arise in economics generally are inherent to credit risk modelling and, more broadly, to bank supervision.

Nevertheless, we believe that limitations that are unlikely to be circumvented should be set aside, as we must make the best of what information is available, avoiding excessive complexity and looking for results that are reasonably discriminating and that are consistent with our informed opinion. In light of this, we believe the IRB approach reflects reasonable modelling choices and compromises, as there is at this time no obvious alternative.

*ANPR Page 44: Could the very low capital requirements for prime mortgages that may result under the AIRB, contribute to a credit – induced bubble in housing prices?*

Response:

We believe mortgage market characteristics are currently, and will continue to be under Basel II, primarily affected by market factors, rather than capital requirements. To the extent capital is important, internal risk assessment is likely to have a greater effect on these markets. The relatively onerous levels of capital required by Basel I are not reflected in margins on mortgage products, but has forced the development of a securitization market. We believe that the capital alignment to underlying risk in Basel II will simplify the management of these products but should not have a major effect on overall pricing.

*ANPR Page 46: Partial recognition of FMI*



Response:

We believe on conceptual grounds that future margin income should be recognised to the extent and at the level it is reasonably certain to materialise. This includes partial recognition.

Please see also Section 6.1 on EL – UL, where we state the view that recognition of FMI is no less valid under the October 11 proposals than prior to those proposals, as it is not related to issues about general reserves.

We note that, in practice, we have not observed much adverse comment on the removal of FMI and may conclude that perhaps it is not a material issue for most banks in which case we would support its removal for the sake of simplicity.

*ANPR Page 49(1): The Agencies recognize the existence of various issues in regard to the proposed treatment of ALLL amounts in excess of the 1.25 percent limit and incorporation of expected losses in the A-IRB framework and the treatment of the ALLL generally.*

Response:

Please see section 6.1 above.

*ANPR Page 57: The Agencies seek comments on the methods set forth above for determining EAD, as well as on the proposed backtesting and on whether banking organizations should be permitted to use the standard supervisory haircuts or own estimates haircuts methodologies.*

Response:

We believe that banks should be allowed to use their internal counterparty level VaR calculations for repos without backtesting. While banks should validate their methods, overall process and results, we view the proposed backtesting regime as prescriptive and excessively onerous. It is not justified by the likely small impact on capitalization and overall safety and soundness.

Our arguments on this point are given above where repo VaR backtesting is given as an example.

We believe that banks should also be allowed to use the standard haircuts or internal haircuts methods set out in CP3. This is because there is in practice a continuum of methods for calculating counterparty level VaR, from pure transaction – level haircut to full counterparty level simulation including all portfolio effects on the whole portfolio, and the current practice of banks typically lies somewhere along this line using a mixture of methods including add-ons for non – core elements of the portfolio. A rule disallowing add-ons would be difficult to interpret, and would interfere with the gradual development of best practice.

*ANPR Page 58: Industry comment is sought on adjusting PD or LGD estimates for guarantees and how banking organizations are currently treating various forms of guarantees within their economic capital allocation systems.*

Response:

The ANPR sets out a more detailed version of the CP3 substitution approach to guarantees in which the better of the guarantor and obligor risk weight is the minimum requirement, with additional requirements for basis factors such as FX mismatch to be determined internally by the institution. The exception to this is maturity mismatch, for which a prescription following CP3 is proposed (see below, ANPR page 61 question 2).

Based on the general principles set out above in Section 3, we do not agree with additional prescription where the risk of understatement of capital is not materially impacted. On this basis, and considering the likely scope of implementation scope of Basel II in the US, we do not believe there is any need for further guidance beyond what is in the ANPR.

Indeed, as long as the substitution approach is adopted, there can be no doubt that the overall relation of capital for guaranteed or protected exposures overall is at a prudent level, and in our opinion there is no need to add further restrictions resulting from concern about small basis risks. We agree, however, that within any given approach, such as that proposed recently in the Federal Reserve White Paper on Joint Default (see below), there may be a need to impose certain additional conditions in return for an overall improvement in alignment between capital and risk.

We fully support the positions presented in Fed White Paper ("Treatment of Double Default and Double Recovery Effects for Hedged Exposures under Pillar I of the proposed New Basel Capital Accord", Federal Reserve, June 2003).

The methodology proposed in this white paper, which is fully embedded in and consistent with the IRB approach generally, requires capital based on a conceptually correct assessment of joint default and recovery risks in the IRB framework. The values of certain parameters needed in the proposed formulae, particularly  $\rho_g$  and  $\rho_{og}$  remain to be discussed, but until internal models are allowed in full for the assessment of risk at the portfolio level, we regard these proposals as having merit.

*ANPR Page 60 : The agencies invite comment on an approach whereby the notional amount of a credit derivative that does not include restructuring would be discounted.*

Response:

We support the proposal recently made by ISDA<sup>16</sup>, which gives the following components of capital charge where protection has been purchased on an underlying and that purchased protection does not include restructuring within the reference events:

- Charge, on the underlying notional, based on the better of the protection seller's and the underlying obligor's risk weights.
- Additional charge for restructuring risk, equal to  $35\% \times \text{underlying notional} \times \text{underlying obligor's risk weights}$ .

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<sup>16</sup> ISDA-TBMA, CP3 Comments, Section 1. Available from [www.isda.org](http://www.isda.org). Tom Wilde of Credit Suisse First Boston is a member of the ISDA working group on Credit Risk Mitigation and has been actively involved in formulating the proposals of this working group on double default risk and the treatment of restructuring risk.

- Total to be capped at the charge if there were no protection.

The charge is therefore the sum of the “normal” charge based on substitution, which applies when restructuring is covered, plus an additional element of capital based broadly on the proportion of events which involve restructuring and therefore give rise to direct risk when restructuring is not covered.

We believe that this approach is prudent and in many cases will give no benefit, i.e. the cap will apply. We see as the underlying issue here the need to include the existing substitution approach to joint default risk. This approach in itself is onerous, and we fully support the alternative conceptual framework, consistent with the IRB approach, which has been developed by Federal Reserve staff<sup>17</sup>.

We further believe that there should be a review of the treatment of joint default risk along the lines proposed in this white paper, that the treatment outlined should be implemented in the New Accord and that the above proposal for restructuring can be suitably modified to become consistent with this approach.

*ANPR Page 62: The Agencies are seeking industry views on the PFE add-ons proposed at p62 and their applicability.*

Response:

We note that the ANPR proposed CDS add-ons, (ANPR page 62) mirror those of CP3, paragraph 675. ISDA’s comments on these add-ons are therefore applicable and Credit Suisse Group supports those comments that we believe to be consistent with our comments below<sup>18</sup>.

Together with ISDA, we hope that regulators will conduct a global review of counterparty risk, including credit derivatives in 2004, building on existing work by US regulators and ISDA. We note that the comments below relate to the proposals in their current form, and would possibly be made redundant by changes resulting from such a review.

*Protection sellers – cap on add-ons*

For a protection seller, the add-on represents an increase in the *negative* value of the payout leg of the sold option (i.e., a reduction of the absolute amount of that liability), such that that liability ceases to reduce exposure to other assets against which it could have been netted.

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<sup>17</sup> “Treatment of Double-Default and Double-Recovery Effects for Hedged Exposures under Pillar I of the Proposed New Basel Capital Accord”, White Paper, Federal Reserve, June 2003

<sup>18</sup> ISDA - TBMA proposals on counterparty risk treatment of credit derivatives are at Section 1, ISDA – TBMA response to CP3, published July 2003. ISDA’s proposals on counterparty risk treatment in general are contained in the latest publication of the ISDA counterparty risk working group, June 2003. See [www.isda.org](http://www.isda.org). Tom Wilde of Credit Suisse First Boston is chairman of the ISDA counterparty risk working group.

The minimum absolute value of the payout leg, i.e., the value represented by (MV + add-on), is zero. Therefore in the case of sold options, the add-on should be capped at minus the current MV of the option payout (or, in other words, at plus the MV of the option payout to the buyer). It is common for credit derivative values to be less than 5% of notional, so such a cap would likely have significance for general levels of capital charge.

#### *Protection buyers*

We support the comments of ISDA<sup>19</sup> that an adequate add-on for qualifying reference obligations is 3%, while the table has 5%.

#### *Maturity dimension*

Within a counterparty-level calculation of the sort proposed by ISDA, perhaps using a bank's internal model and aimed at calculating EPE rather than PFE, a maturity dimension for credit spread risk would arise naturally from the dependence of EPE on portfolio risk and, therefore on credit spread delta, which is naturally a function of maturity as well as derivative notional. For counterparty risk positions with maturity beyond one year, there is also the difficult question of maturity adjustment reflecting migration risk. There is no consensus in the industry about how this should be capitalised, and we would welcome further dialogue on this point. In the meantime, however, we do not object to using the "standard" AIRB maturity adjustment.

*ANPR Page 72: The Agencies seek comment on the extent to which an appropriate balance has been struck between flexibility and comparability for the A-IRB requirements.*

#### Response:

The ANPR document is, on the whole, a better compromise between these requirements than CP3, which errs on the side of comparability. We believe this is partly due to the more suitable scope of application of the ANPR, i.e., its application to large, internationally active banks only. Please see our comments in our introduction, Section 1.

*ANPR Page 76 / 77: Should there be deduction for all retained positions below KIRB?*

#### Response:

We believe not. See Section 3.

*ANPR Page 79: Should originators be able to use ratings where position is below KIRB*

Response: Yes, our position is that there should be no regulatory definition of originator and all parties should be allowed to use an external rating. See Section 6.2.

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<sup>19</sup> ISDA, Commentary on the QIS3 Technical Guidance, Annex 5.

*ANPR page 81: Is it appropriate to differentiate RBA risk weights based on tranche thickness and pool granularity?*

Response: We believe not. Our quantitative experience and dialogue on the calibration of the risk weights has demonstrated to us that the fine distinctions made on these bases are much smaller than the intrinsic uncertainty of the risk, and that this risk is not globally material. We believe that the distinctions are unnecessary complexity.

*ANPR Page 86: The agencies seek comment on the SFA.*

Response: See Section 3.

*ANPR Page 87(1): Liquidity facilities.*

Response: See Section 3.4 If our proposals were adopted, then SFA-based approaches and external (and internal) ratings-based RBA approaches would be available for liquidity facilities. We believe the simplification achieved by this would far outweigh any additional uncertainty in overall prudence.

If the proposals in Section 3 are not implemented, then we would request that the ANPR at least reflect a current CP3-sanctioned method for liquidity facilities (CP3 paragraph 600), i.e., the use of external ratings together with the RBA risk weights.

*ANPR Page 87(2): Originators and investors*

Response: See Section 3.4.

## **Appendix 1 – Apportionment of Operational Risk Capital**

A significant issue regarding the implementation of an AMA is the calculation of legal entity capital numbers using an AMA approach. Due to issues such as lack of data relevant to each legal entity and that firms are generally managed along business line basis rather than legal entities, it is not feasible for firms to determine legal entity capital requirements using an AMA model.

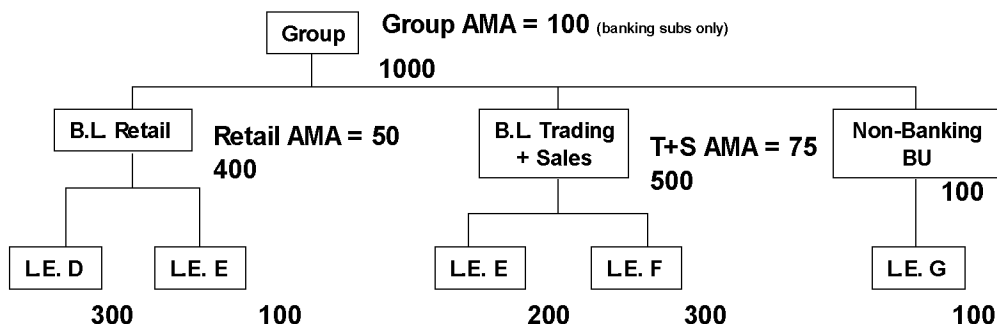
Two approaches have been proposed to the Risk Management Group of the Basel Committee to apportion the Group level AMA capital to the subsidiaries in a simple, transparent and pragmatic manner. In both of these methodologies, the sum of the legal entity capital requirements equals the Group level AMA capital. We would support either of these methodologies as a practical solution to the apportionment issue.

### **Basic Apportionment Approach (Apportionment of Business Line AMA)**

This approach would be only available to banks that calculate an AMA capital requirement for each business line within a banking group. The capital at the business line level is apportioned to each of the legal entities relating to the business line, using gross income as the apportionment key. The legal entity capital apportionments are then scaled by the ratio of the sum of the business line AMA capital requirements to the group level AMA capital, to rebase the total legal entity capital requirements to be equal to the group capital. See below for worked example.

## Basic Apportionment Approach

AMA calculation at Group and Business Line level



**40** Green numbers denote the Legal Entity Gross Income for each legal entity within the Business Line

**60** Red numbers denote the Business Line Gross Income

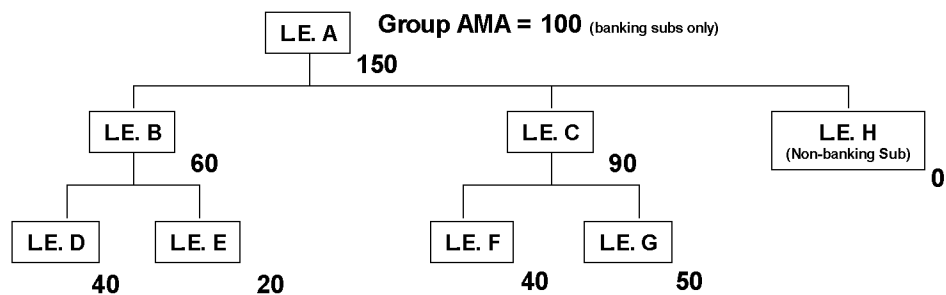
Capital Requirement for:	LE D = (300/ 400) * 50 * (100/ (50+75))	= 30
	LE E = (((100/ 400) * 50) + ((200/ 500) * 75) ) * (100/ (50+75)))	= 34
	LE F = (300/ 500) * 75 * (100/ (50+75))	= 36
		-----
		\$100
		-----

## Standardised Apportionment Approach (Apportionment of Group Level AMA)

This approach apportions the group-level AMA capital requirement to each legal entity using the Standardised Approach capital charges as the key. Each legal entity is apportioned its share of the group level AMA capital based on the proportion of capital that would be derived using the standardised approach compared to the total group capital using the Standardised Approach. See below for worked example.

## Standardised Apportionment Approach

AMA calculation only at Group level



**40** Red numbers denote the Legal Entity Basel 2 Capital under the Standardised Approach

Capital Requirement for:

$$\text{LE D} = 40 / 150 * 100 = 27$$

$$\text{LE E} = 20 / 150 * 100 = 13$$

$$\text{LE F} = 40 / 150 * 100 = 27$$

$$\text{LE G} = 50 / 150 * 100 = 33$$

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100  
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# Securitization under Basel II

## Introduction

The Basel II proposals for asset securitization have been the focus of substantial criticism from the industry. The Basel Committee announced in their Madrid press release in October 2003 that the rules would be re-examined with a view to simplification, and in particular that the supervisory formula approach (SFA) would be eliminated.

We have joined in industry criticism of the original rules, focussing on the complexity, prescriptive tone and difficulty of implementation in the current proposals. However, there is also much excellent work embedded in these rules, which could be lost if the SFA was simply eliminated. We believe there is a more dexterous solution to this issue, one that addresses the substance of the concerns raised by industry while also retaining the advantages of the current proposal.

We believe it would be a mistake, and a misunderstanding of industry criticism, if the supervisory formula were simply jettisoned. It is not the mathematical complexity of the supervisory formula *per se* that has created the controversy in this area (though we believe it can, and should be simplified somewhat). On the contrary the basic formula has been widely admired by practitioners and there has been, to our knowledge, no significant industry comment asking for elimination.

The brunt of the legitimate criticism centers on the difficulty of the procedures that govern the use of the SFA. For example, there is a regulatory override to deduct an equity tranche from capital when the formula already provides a very high (but not quite 100%) capital charge. It would be easy to remove this override, giving a simpler approach with essentially the same risk characteristics and with little impact on overall capital. We believe that this example illustrates the right way forward to creating a workable and practical set of rules for asset securitization.

The building blocks of the proposals (supervisory formula and RBA approaches based on ratings) should be modified in some areas, but they are generally robust and well-founded. The key changes needed are mostly in the framework that describes how the components of these rules fit together. If the "flow chart" aspects of the rules could be simplified and clarified, we think these rules could become much more workable and effective. The result would be a set of rules that retained the "best practice" advances embedded in the current document, but structured to be more practical given the realities of bank infrastructure and process. It would provide risk sensitive capital, correct incentivisation and arbitrage deterrents, but would be more adaptive to future changes in the marketplace. We believe it could be accomplished with relatively modest changes to the current wording of the proposals.

## Finalising the asset securitization rules

Before submitting our specific modification proposals, we would like to review the requirements that should be satisfied by a good solution for asset securitization.

First, we believe the Basel II rules for asset securitization must be practical, recognising today's market practices and the typical data possessed by parties to a securitization.

Banks should be able to perform their capital calculations without onerous systems or data requirements. As a concession to practicality, therefore we believe that banks should have a free choice as to the approach they take under the rules, either the SFA or ratings-based. We believe experience with the rules so far (e.g. QIS3) and industry comment indicates that this is a necessary step to create workable rules.

On the other hand, the rules must provide a capital treatment that gives good risk management incentives, and is proportionate to the underlying risks. We believe that both the RBA and SFA approaches are directionally correct, embed good incentives to risk management and deter arbitrage. Between the two, we believe the SFA is the approach most likely to give capital which is calibrated most accurately (neither too high nor too low) for the underlying risks in specific portfolios.

Therefore, for banks with relatively modest securitization operations, we would argue that the RBA approaches are adequate, because they are reasonable and incentivise good risk management. Although the allocated capital is not as well calibrated to the underlying risk as the SFA calculation, the overall improvement in comfort that would result from required use of the SFA will not typically justify the potential extra difficulty in employing this approach.

However, we believe the SFA should be the preferred approach for large, sophisticated institutions where securitization activities are sufficiently material that the capital allocated to securitization is significant to overall good capitalisation<sup>1</sup>. We believe that these banks should be encouraged to use the SFA approach where possible. Alternatively, an internal modelling approach based on the principles underlying the SFA and addressing the risks capitalised by the SFA may be a suitable alternative for these institutions. Encouragement to use the SFA or an equivalent should be part of a bank's dialogue with its supervisor under Pillar II.

In summary, each of the current elements of the approach (SFA, RBA) should remain in place, but we should allow more freedom in the rules surrounding their use. Banks should be able to choose, on reasonable grounds, the approach most suitable for them, subject to supervisory review. The SFA approach should be recognised as more appropriate for large banks with material securitization activities, on account of its superior risk sensitivity. These banks should aim towards using the SFA or equivalent generally, in an evolutionary approach. These proposals are set out in more detail below.

## Our proposals

### Supervisory Formula Approach ("SFA")

- The supervisory formula approach (SFA) offers an important and valuable approach based on sound principles.
- The SFA should be retained, with some simplifications specified below. Banks should be encouraged to use the SFA where possible, by a more pragmatic approach to validation of  $K_{IRB}$  calculations detailed below.

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<sup>1</sup> In terms of a quantitative guide to materiality, bearing in mind the impact of error or uncertainty in capital calculations for a given business area on overall capital, we would tend to regard an area contributing more than 10% to total capital as material and a focus area for validation and use of best techniques.

- The following simplifications should be made to the SFA (in order of importance):
  - Remove the deduction override below  $K_{IRB}$ .
  - Remove  $\omega$  (technically, set  $\omega = \infty$ ;  $\omega$  is no longer needed if tranches below  $K_{IRB}$  are not deducted).
  - Remove  $\tau$  (technically, set  $\tau = \infty$ ).

#### **Calculations of $K_{IRB}$**

- The main difficulty of using the SFA for banks is calculating  $K_{IRB}$ , and in particular obtaining sufficient certainty that their calculation of  $K_{IRB}$  will be satisfactory to supervisors. CP3 paragraph 575 states that positions must be deducted where  $K_{IRB}$  "cannot be calculated", but this is substantially a matter of supervisory judgement and does not offer any indication to banks of their likelihood of having their calculations accepted.
- Therefore, although  $K_{IRB}$  calculations should naturally be validated by supervisors, it should be clarified that this will be on reasonable principles and on a business – wide, not asset by asset, basis. This kind of process would be more analogous to general IRB verification.
- To encourage evolution toward better securitization risk management and widespread use of the SFA, supervisors should accept a lower overall standard for SFA calculations than for IRB calculations, provided calculations are done to the best of ability within reason.

#### **Simplification of the framework**

- The distinct rules for originators and investors and the consequent need to distinguish these types of participant are a major cause of the unnecessary complexity of the current rules. Regulatory distinctions between originator and investor should be eliminated. All the approaches (SFA, use of ratings) should be available to all parties in principle, subject to supervisory review.
- In addition, internal ratings should be allowed for securitization tranches, subject to supervisory approval. Approved rating systems would likely be based on rating agency models and should, where possible, be compared with the results of the SFA as a validation.
- However, it should be recognised that while all the approaches offer good risk management incentives and deter arbitrage, the SFA offers the most comfort in terms of risk accuracy. Therefore, banks with securitization activities that are material to their total capitalization should be encouraged to adopt the SFA or an equivalent internal approach wherever possible, analogously to adoption of an advanced IRB approach. Adoption of SFA approaches or an equivalent approach should be encouraged and managed under Pillar II of the Accord.

**Liquidity facilities**

- Liquidity facilities pose particular difficulties. Current market practice, while incorporating reasonable risk management diligence, does not always result in banks collecting the information required to perform the capital calculations proposed under the draft Accord.
- However, banks do typically assign ratings to liquidity facilities, either via an external rating or an internal one derived under rating agency principles. Allowing a ratings based approach for liquidity facilities would eliminate the current practical difficulties in this area, and would also remove the need for a separate regulatory definition of liquidity facilities.
- However, we believe that for liquidity facilities as for other securitization assets, the SFA or equivalent is the better approach where the accuracy of the result is material to overall soundness. In such cases banks should be encouraged under Pillar II to aim towards use of SFA, recognising that substantial investment and time may be needed to achieve this.